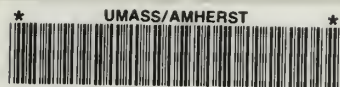


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The Massachusetts Cholesterol Challenge

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 For Your Heart
Program
1989-1990

A
REPORT

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Overview

Heart disease is the leading cause of death and disability in Massachusetts. Each year more than 20,000 people in this state die of heart disease. This represents about 36% of all deaths. Among blacks, the heart disease death rate is significantly higher than among whites and Latinos. (Figure 1).

The impact of heart disease on our lives and our families goes beyond the numbers stated above. As the leading cause of disability in Massachusetts, it can impose tremendous hardship and financial stress on a family for years. It is estimated that heart disease costs \$3 billion annually in Massachusetts.

The financial and emotional strain of heart disease is staggering. Fortunately, we know how to prevent many cases of heart disease and how to reverse it once it has developed. Reducing cholesterol levels, maintaining normal blood pressure and body weight, eating a low-fat diet, being a nonsmoker, and exercising regularly can reduce anyone's risk for heart disease.

The Massachusetts Department of Public Health (DPH) estimates that more than 250,000 residents of the state have heart disease and less than 20% of the population are at low risk for heart disease. In an effort to prevent the potentially devastating toll of heart disease, DPH's Division of Chronic Disease Prevention launched a statewide campaign called "For Your Heart ... The Massachusetts Cholesterol Challenge" in September 1989. The goals of the program are to identify individuals with elevated cholesterol levels and educate both residents and health care professionals about risk reduction strategies.

As part of the For Your Heart Program, the Division of Chronic Disease Prevention worked with communities across the Commonwealth to offer free cholesterol screening to residents. Each participating community made a special effort to screen the people most at risk for heart disease, including low-income people and people of color. During the For Your Heart Cholesterol Challenge inaugural year, over 4,000 people were screened for cholesterol. The following information was collected from participants during the screenings.

Figure 1
Heart Disease Deaths by Race & Ethnicity
Massachusetts: 1988



•Between ages 45 to 64 years
Source: Bureau of Health Statistics

Massachusetts Cholesterol Challenge Participant Profile

In 1989 a total of 16 community-based agencies serving 271 communities in Massachusetts (Figure 2) participated in the Massachusetts Cholesterol Challenge. The agencies are listed in Table 1.

Based on information collected at the screening sites, a picture of who participated in the Massachusetts Cholesterol Challenge can be drawn.

- o 61% of participants were women
- o 56% were between 25 and 54 years old (range was 18-96 years)
- o 23% of participants were people of color
- o 82% had at least a high school education

Race/Ethnicity

Heart disease rates are higher among men than among women and higher among blacks than among whites in Massachusetts. Furthermore, while the heart disease death rate has dropped over the past ten years, this decline has been steeper for white men than for black men, and for black and white women.

According to the 1990 population projections, approximately 12% of Massachusetts residents are people of color. In the Massachusetts Cholesterol Challenge, 23% of the population served were people of color (Figure 3).

Figure 2
For Your Heart Program Participating Agencies

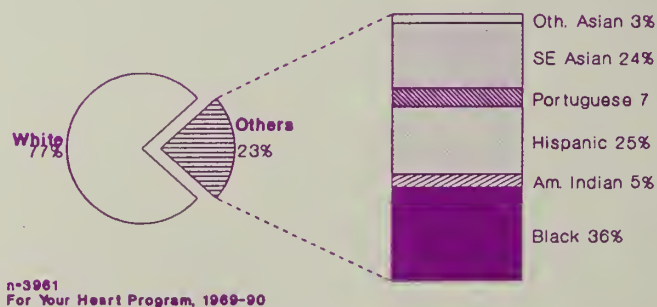


Table 1
For Your Heart Program Participating Agencies

Barnstable County Health & Envir. Dept.
Billerica Board of Health
Great Brook Valley Health Center
Greenfield Community College
Lee Visiting Nurse Association
Leominster Multi-Service Center
Martha's Vineyard Community Services
Millis Board of Health

New Bedford Health Dept.
Northampton VNA
Roxbury Comprehensive CHC
Salem Visiting Nurse Association
South Boston Comm. Health Ctr.
South Cove Comm. Health Ctr.
VNA of the North Shore
Worthington Health Associates

Figure 3
Participants by Race/Ethnicity



n=3961
For Your Heart Program, 1989-90

Lifestyle Risk Factors

Risk for heart disease can be substantially reduced by adopting healthy behavior. The major risk factors for heart disease that can be reduced by changes in behavior are high blood cholesterol, high blood pressure, cigarette smoking, sedentary lifestyle, high-fat diet, and obesity.

Blood Cholesterol Levels

The National Cholesterol Education Program recommends that a total cholesterol level of less than 200 mg/dl for adults (1). Approximately half of all adults in the United States have cholesterol levels high enough to put them at risk for heart disease (1). Each 1% reduction in blood cholesterol level creates a 2% reduction in risk for heart disease (2).

In the Massachusetts Cholesterol Challenge only 44% of the people screened (Figure 4) had desirable cholesterol levels (<200 mg/dl).

High blood cholesterol levels appeared to be associated with other factors such as gender and education. In the Massachusetts Cholesterol Challenge, women were more likely to be in the high-risk category than men (Figure 5). Massachusetts Cholesterol Challenge participants who did not finish high school were also more likely to have high cholesterol levels than those who had possessed college degrees (Figure 6).

Figure 4
Total Blood Cholesterol Levels (mg/dl)

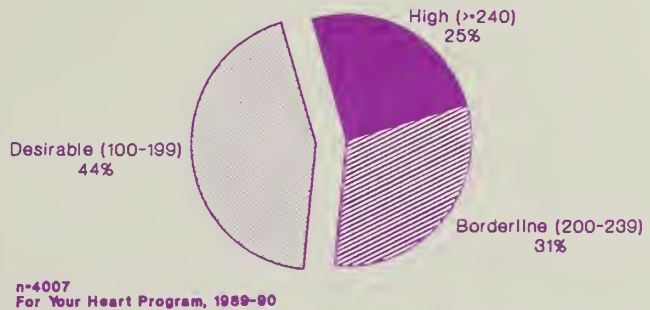
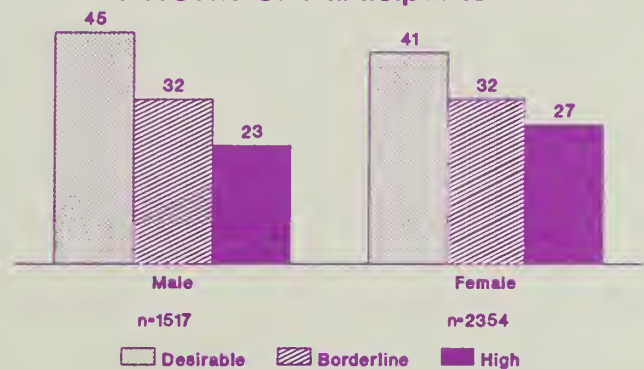
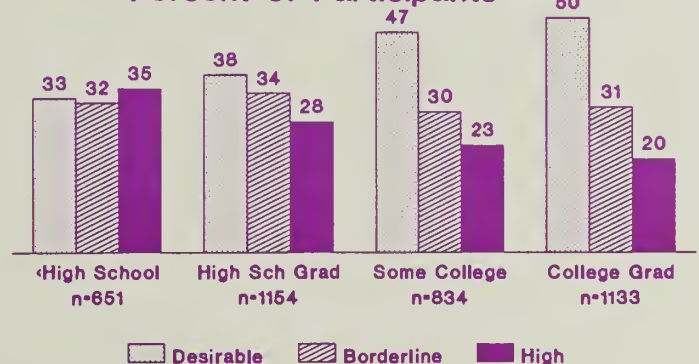


Figure 5
Cholesterol Levels by Gender
Percent of Participants



For Your Heart Program, 1989-90

Figure 6
Cholesterol Levels by Education
Percent of Participants



For Your Heart Program, 1989-90



High Blood Pressure

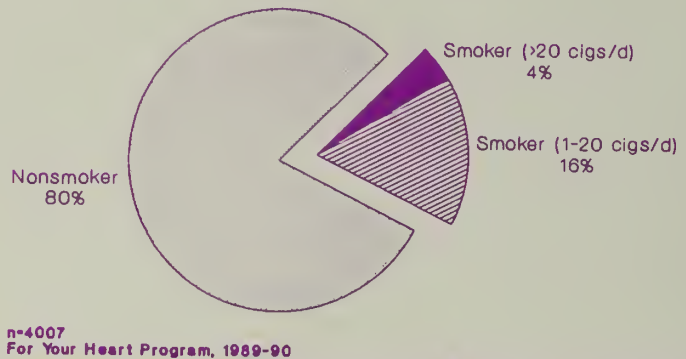
People with high blood pressure have three to four times the risk of developing heart disease (3). An estimated 30% of people living in both the United States and Massachusetts have high blood pressure. High blood pressure is also significantly higher among blacks and Asian people.

The report of the Division of Chronic Disease Prevention's Blood Pressure Challenge, expected to be available in the summer of 1991, will present a similar profile for blood pressure among individuals screened across the Commonwealth.

Smoking

Smokers have a 70% greater death rate due to heart disease and are at two to four times greater risk for sudden death than nonsmokers. In Massachusetts, approximately one person dies from a smoking-related cause *every minute*. A total of 20% of Massachusetts Cholesterol Challenge participants identified themselves as smokers (Figure 7). Smoking appears to be on the increase among young women, adolescent girls, and people of color.

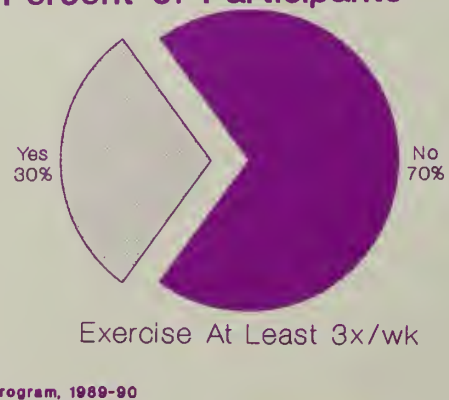
Figure 7
Smoking Status
Percent of Participants



Exercise

Lack of regular physical exercise is a major risk factor for heart disease. Physically inactive people are twice as likely to develop heart disease as people who exercise regularly. Maintenance of cardiorespiratory fitness requires as little as 20 minutes of aerobic activity three times a week (Figure 8). Only 30% of Massachusetts Cholesterol Challenge participants reported that they exercise regularly.

Figure 8
Exercise Habits
Percent of Participants



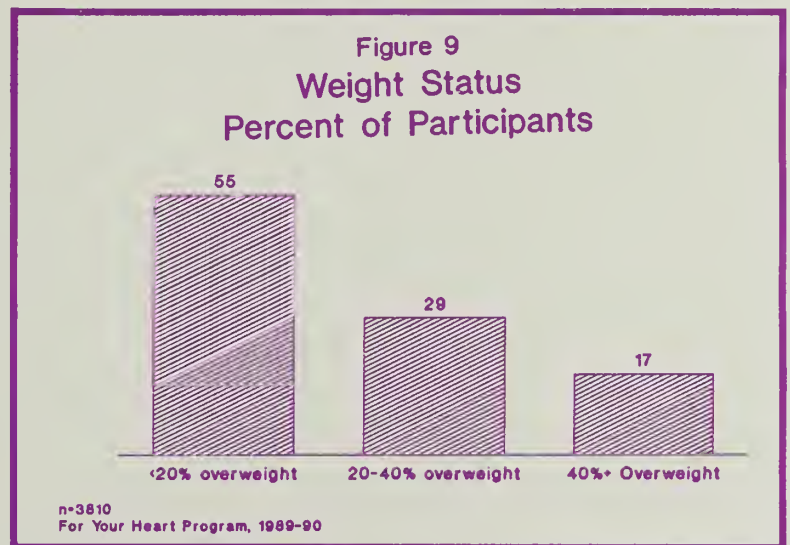
Diet

The evidence is overwhelming that Americans eat too much fat. The National Institutes of Health, the American Heart Association and other scientific organizations recommend a diet low in fat and cholesterol (1).

Almost half (45%) of the Massachusetts Cholesterol Challenge participants consumed high fat, high cholesterol foods on a regular basis.

Obesity

Obesity is a risk factor for heart disease, high blood pressure, high cholesterol levels, and diabetes (4). It also increases a person's risk for gallbladder disease and some types of cancer. The Centers for Disease Control defines obesity as being at or above 120% of ideal weight for height. Based on this definition, 46% of participants in the For Your Heart Program were obese (Figure 9). The groups most at risk for obesity are blacks, Latinos and women.



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May 1991